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Musical Neofism: Pound's Theory of Harmony in Context

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Erza Pound's claim to be considered a musical theorist rests on a substantial body of criticism, a handful of original compositions (including two "operas"), and practically no formal knowledge of music at all. Yet Pound, almost miraculously, created in his opera *Le Testament de François Villon* a viable, innovative work in an advanced musical idiom. His "Treatise on Harmony," according to Canadian composer Murray Schafer, ranks with Schoenberg and Schenker because it "so cogently forces us to see harmony as a study in movement."[1] In addition, Pound was an influential voice in the revival of pre-classical music; he translated and wrote about the Provençal troubadours, and he contributed significantly to the resurrection of Vivaldi.[2] Yet Pound himself could scarcely write notes on a staff. He well deserves the description I have heard Northrop Frye give of him: "the most intrepid musical amateur in history since Jean-Jacques Rousseau."

In order to understand the rationale behind Pound's musical prouncements, one must not only penetrate their frequent obscurities but also place them in several disparate contexts. First, there is "vorticism," a convenient label for Pound's mature theory of literature and the arts in general. Then, there is his response to the recent music that he heard just before and after 1920—notably Debussy, Scriabin and the futurist rumblings of Luigi Russolo—out of which he tried to imagine a vorticist music. Finally, there is the music and esthetic of George Antheil, whom Pound met in Paris in

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1923; for despite Antheil's later repudiation of Pound, their writings on music during the 1920s reveal close parallels in their thinking and a productive cross-fertilization. Together, they are important in music history as one of the earliest creative responses to the futurist challenge of music conceived purely as an arrangement of *objets sonores*.

Pound's vorticism, unlike imagism, was not a literary movement, but embraced all the arts. It marked his rejection of static imagism. Influenced by the Italian futurists, who painted running horses with many sets of legs, it represented images in motion, dynamic qualities rather than things seen. Most important, it corrected the imagist tendency to degenerate into mere description, counterpart of the merely "retinal art" (to use Marcel Duchamp's phrase) of the impressionist painters. Vorticism insists on the subjective re-creation of artistic form out of sensory raw material: "You may think of a man as that toward which perception moves. You may think of him as the TOY of circumstance, as the plastic substance RECEIVING impressions. OR you may think of him as DIRECTING a certain fluid force against circumstance, as CONCEIVING instead of merely observing and reflecting."[4] This principle is clear in Pound's distinction between ordinary photography and the "vortography" of Alvin Langdon Coburn, who explored techniques for producing non-representational images with the camera. Photography reproduces a retinal impression; but, as Pound wrote in 1918, "any imbecile can shoot off a Kodak": "The logical end of impressionist art is the cinematograph."[5] Coburn's experiments, however, freed the camera from representation so that it could truly create images, not just record them.

In its emphasis on abstraction, vorticism assumes an exact, permanent correspondence between a sense datum and the emotional response to it. Pound quoted with approval Walter Pater's "all arts aspire to the condition of music," and he would agree with Eduard Hanslick or with Susanne Langer, who argued that music does not represent feelings but the "morphology of feelings": "music articulates forms which language cannot set forth."[6] The arts embody in sensible forms, Pound said, "a sort of inspired mathematics," which gives us equations, not for abstract figures, triangles, spheres and the like, but equations for the human emotions.[7]

These beliefs, which drove artists to explore different media in the abstract, force two contradictory conclusions. The experience may be thought richer if channeled through as many senses as possible—the ideal of Wagnerian music-drama, which combines music, verse, drama and design into one supreme form. The ideal of appealing to all senses at once, popularly (but not properly) identified with the Wagnerian *Gesamtkunstwerk,*[8] led to many experiments, from the synesthesia of the *symbolistes* to mixed-media projects on the scale of Scriabin's *Mystery.* But the artist may keep each sensation as pure as possible, uncluttered by other sensations. Pound takes this position in his *Antheil*:

> There are two aesthetic ideals: the Wagnerian, which is not dissimilar from that of the Foire de Neuilly, i.e., you confuse the spectator by smacking as many of his senses as possible at every possible moment, this prevents his noting anything with unusual lucidity, but you may fluster or excite him to the point of making him receptive; i.e., you may slip over an emotion, or you may sell him a rubber doll or a new cake of glass-mender during the hurly-burly. The other aesthetic has been approved by Brancusi, Lewis, the vorticist manifestoes; it aims at focusing the mind on a given definition of form, or rhythm, so intensely that it becomes not only aware of that given form, but more sensitive to all other forms, rhythms, defined planes, or masses. (pp. 256-57)

Characteristically, the "Wagnerian" esthetic is hedonistic, the vorticist didactic. In a manifesto in Wyndham Lewis' *Blast,* Pound labels this theory the "primary pigment," declaiming it in upper case: "EVERY CONCEPT, EVERY EMOTION PRESENTS ITSELF TO THE VIVID CONSCIOUSNESS IN SOME PRIMARY FORM. IT BELONGS TO THE ART OF THIS FORM. IF SOUND, TO MUSIC; IF FORMED WORDS, TO LITERATURE; THE IMAGE, TO POETRY; FORM, TO DESIGN; COLOUR IN POSITION, TO PAINTING: FORM OR DESIGN IN THREE PLANES, TO SCULPTURE; MOVEMENT TO THE DANCE OR TO THE RHYTHM OF MUSIC OR OF VERSES (*Gaudier-Brzeska,* p. 81).

Pound often criticized music for being programmatic. Music must appeal to the ear, not the eye; it must not conjure up scenes or visions or objects. And yet descriptive music gave Pound much pleasure, and the most prominently displayed piece in his *Cantos* is Janequin's "Chanson des Oiseaux" (Canto 75). Vorticism does not rule out representational music any more than it ruled out representational painting. What it does rule out is subject matter as a basis of evaluation. And it restricts programmatic possibilities by the rule of "primary pigment": music may be properly representational only of sound:

> In music there is representation of the sole matter wherein music can be "literally" representative, namely sound. Thus the violinist reading Janequin's music transposed [sic] said: a lot of birds, not one bird alone. Down on through Vivaldi and Couperin there is this kind of music, music of representative outline. And in distinction to it is music of structure, as J. S. Bach in fugue or keyboard toccata, or Hindemith today in his Schwanendreher. Not contradictory, not hostile one to the other, but two blessed categories, each for a particular excellence.[9]

Program music encourages the listener to recognize objects—or even, in some of Wagner's *leitmotifs,* abstract ideas—rather than to perceive musical form: "Musicians long ago learned that programme music was not the ultimate music. Almost anyone can realize that to use a symbol *with an ascribed or intended meaning* is, usually, to produce very bad art. We all remember crowns, and crosses, and rainbows, and what not in atrociously mumbled colour." Pound then (without mentioning the name) turns the attack against Scriabin's synesthesia: "I do not mean that I was unfamiliar with the kinder-

garten stories about colours being like tones in music. I think that sort of thing is nonsense. If you try to make notes permanently correspond with particular colours, it is like tying narrow meanings to symbols" (*Gaudier-Brzeska,* pp. 86-87). Pound associated Scriabin's "colour-organ" and his claims for "colour-hearing" with Debussy's so-called suggestions of "colour" in his music, an aspect of Debussy's art which Pound took more literally than most of us would do today. And the impressionism that Debussy represented, Pound recognized, was the creator of the futurist movement led by F. T. Marinetti, the chief target of the vorticist attack.

Pound labelled futurist art "accelerated impressionism," and he carried his arguments against both futurism and impressionism onto musical ground. He explicitly contrasts impressionism with properly abstract music:

> The music conception of form, that is to say, the understanding that you can use form as a musician uses sound, that you can select motives of form from the forms before you, that you can recombine them and recolour them and "organize" them into new form—this conception, this state of mental activity brings with it a great joy and refreshment.... The "musical conception of form" is more than post-impressionism. Monet took impression of colour. They say Cezanne began taking "impressions of form." That is not the same thing as conceiving the forms about one as a source of "form-motifs," which motifs one can use later at one's pleasure in more highly developed compositions.[10]

Impressionism is mimetic and receptive; it defended itself, Pound notes, by using Berkeley's "theory of the minimum visible, i.e., of the effect of points of light and colour on the retina" (*Pavannes and Divisions,* p. 255). But the "organization of forms," Pound insists, "is a much more energetic and creative action than the copying or imitating of light on a haystack" (*Gaudier-Brzeska,* p. 92). For this reason it is most misleading to equate Pound's esthetic, at least in its post-*Lustra* phases, with impressionist art, as was once fashionable (H. H. Watts, for example, once described the Poundian imagist as "the poet before the moment, Monet from hour to hour before his cathedral or his haystack").[11] Pound was never content with this sort of imagism.

If Pound equated Debussy's music with Monet too glibly, he did grant it measured praise: Debussy was "one of the great minor poets of all music," who has "long outweighed all his contemporary composers in western Europe"; he "had the grace to recognize that to be a great exponent of a limited number of moods was a far finer thing than to be a fourth-rate pseudo-colossus" (*Music,* p. 96). But Debussy's impressionism struck Pound as "music for the eye," "full of fantastic colour suggestion," that is, "colour for the imaginative eye, not what is called 'tone-colour'" (*Music,* p. 96, 114). Like Scriabin's "colour-organ," it violates the rule of primary pigment. Pound likewise objected to the programmatic element in Debussy:

> In Debussy's piano work, that is, in the music by which Debussy is generally known, there is a charm which is also a weakness. When Debussy was new to us, those of us who "heard" him at all found in the "Sunken Cathedral," in "Sails," in "Gold Fish," in the "Granada," and indeed, in all this type of work, suggestion of colours, suggestion of visions, and, with good pianists, a new use of the sound-residue, the aftertone and the overtone.... He succeeded, I do not wish to be paradoxical, in writing music for the eye, with the result—as in a different way with Wagner and the middle XIX's century musicians who wrote for the solar plexus, and as must be with the composer who writes music for anything in addition to the ear—the effect of his music diminishes upon repeated hearing. (*Music,* p. 71)

This "suggestion of colour" in Debussy, like Monet's fascination with lighting, leads to momentary sonorities and a loss of rhythmic continuity; Pound realized that Debussy marked the end of harmony severed from counterpoint—a harmony non-functional, which generates no rhythm, which ascends "like steam from a morass" (*Music,* p. 297).

Pound likewise rejected futurism as "accelerated impressionism" and futurist music as a species of program music: "The article on Vorticism in the *Fortnightly Review,* August 1914, stated that new vorticist music would come from a new computation of the mathematics of harmony not from mimetic representation of dead cats in a fog horn (alias noise tuners). This was part of the general vorticist stand against the accelerated impressionism of our active and meritorious friend Marinetti" (*Music,* p. 253). Futurist music was the creation of Luigi Russolo, creator of the *intonarumori* or "noise organ" (Pound's "noise tuners"), which Pound, judging from his allusion, seems to have heard at the London Coliseum on 15 June 1914. Russolo, primarily a painter, is important in music history as the first to present noise as music, thus anticipating Varèse, Cage, and *musique concrête.*

Russolo advanced his ideas in a manifesto called "The Art of Noises," a document now enjoying a belated celebrity. Although he claims that noise music "must not limit itself to reproductive imitation," Russolo's chief aim is to introduce a kind of naive realism into music, the least realistic of arts: "We must break out of this narrow circle of pure musical sounds, and conquer the infinite variety of noise sounds.... Beethoven and Wagner for many years wrung our hearts. But now we are satiated with them, and derive much greater pleasure from ideally combining the noises of street-cars, internal combustion engines, automobiles and busy crowds than from rehearing, for example, the "Eroica" or the "Pastorale."[12]

Russolo's noise organ was, judging from his description, a fairly unsophisticated piece of technology: it produced noises in six arbitrary categories (booms, whistles, whispers, screeches, percussion, and animal sounds), and —a fact which obscures the real innovation—each noise was tuned to a predominant pitch. Russolo's relation of pitch to rhythm anticipates the central notion of Pound's theory of "Great Bass": "The rhythmic movements within a single noise," says Russolo, "are of infinite variety. There is always, as in a musical note, a predominant rhythms [sic]." Not pursuing this line, Russolo

argues instead that noise music will finally liberate music from rhythm (as it indeed has in much recent music). His sketch of music history is quite Poundian—only he sees progress, not decline:

> The Middle Ages...enriched the art of music. Yet they continued to regard music from the point of view of *linear development in time*—a narrow view of the art which lasted several centuries and which persists in the more complicated polyphony of the Flemish contrapuntists. The *chord* did not exist....In a word, the medieval conception of music was horizontal, not vertical. An interest in the simultaneous union of several sounds, that is, in the chord as a complex sound, developed gradually....The art of music first sought and achieved purity and sweetness of sound; later, it blended diverse sounds, but always with intent to caress the ear with suave harmonies. Today, growing ever more complicated, it seeks those combinations of sounds that fall most dissonantly, strangely, and harshly upon the ear. We thus approach nearer and nearer to the *music of noise.*

Noise music, then, is wholly vertical, a logical extension from Debussy's non-functional soronities.

Pound objected that Russolo's noise music depended on object-recognition, and was thus programmatic, relying solely on the hedonistic, receptive faculties; being pure vertical sonority, it destroyed rhythm and therefore musical form. The *intonarumori,* sadly, were destroyed in the mid-twenties during a riot, so we cannot know how they sounded. But significantly, George Antheil, before he met Pound and learned that he was a vorticist, had already called himself a "neofist" (contraction for "neo-futurist") in an article which Pound apparently knew. Antheil's "neofism" borrows the futurists' adulation of machines and rejects tonality, but insists in a Poundian way on rhythm and form. Thus, Antheil's position was "vorticist" before he met Pound. Pound discovered in Antheil a vorticist answer to Russolo, a modernist music of noises in keeping with vorticist formalism.

In general, Pound disparaged most music of the romantic period as "emotional," that is, mimetic of emotions: "Music was vorticist in the Bach-Mozart period, before it went off into romance and sentiment and description" (*Gaudier-Brzeska,* p. 93). Like any representational art, this emotion-descriptive music appeals to the passive mind and ends in hedonism. To Pound, the Franck Violin Sonata was "a search for emotion in music": "In its period," he said, "people longed to be affected by music....These mid-nineteenth-century composers have about as much form as so many armchairs" (*Music,* p. 73). Hearing Beethoven's "Kreutzer Sonata" at the same recital, Pound wrote: "The violin opening of the 'Kreutzer' is exquisite; then, the piano jabs in, and jerks on the violin, tum, tum, ti ump, tum, tum, ti ump....It is the great fight of solar-plexus versus ear. This sonata is a summary of the whole musical history of three quarters of a century." The appeal to the solar plexus is also evident in the sonority, range and volume of the piano. Pound, who tended to dislike loud music, wonders how the "Kreutzer" would sound on a harpsichord: "A slender noise and precision

are a musician's means, for in mere volume he cannot compete with even the lightest howitzer" (*Music,* p. 73). Always, Pound turns from sonority to rhythm and form.

Pound's phrase for his ideal is "pattern music," which he defines in one of his essays on Arnold Dolmetsch, drawing together many of the themes of this discussion:

> That is the whole flaw of impressionist or "emotional" music as opposed to pattern music. It is like a drug; you must have more drug, and more noise each time, or this effect, this impression which works from the outside, in from the nerves and sensorium upon the self—is no use, its effect is constantly weaker and weaker.I do not mean that Bach is not emotional, but the early music starts from the mystery of pattern; if you like, with the vortex of pattern; with something which is, first of all, music, and which is capable of being, after that, many things. What I call emotional, or impressionist music, starts with being emotion or impression and then becomes only approximately music. It is, that is to say, something in the terms of something else. If it produces an effect, if, from sounding as music, it moves at all, it can only recede into the original emotion or impression. Programme music is only a weaker, more flabby and descriptive kind of impressionist music, needing, perhaps, a guide and explanation.[13]

In broadest terms, Pound favored the temporal and disparaged the vertical; he preferred rhythm or melody to chords or timbres. Pound's idiosyncratic use of terminology, however, requires explanation. "Harmony," for example, means to Pound not progressions within a tonal system but merely aggregates of pitch, sonorities detached from tonality or time: "The term 'Harmony' is applied to the science of chords that can be struck simultaneously; and the directions for modulations have been worked out for chords that can follow each other without demanding a strict or even interesting time-interval between their emission" (*Music,* p. 297). Bach, on the other hand, "never thought of using two chords except as parts, integral parts, of a progression, a rhythmical progression" (*Music,* p. 298).

Hence Pound's hurry to "return" rhythm to conventional discussions (as he understood) of harmony, and his prime rule, "There are no two chords which may not follow each other, if the sequence of time intervals and durations is correct" (*Music,* p. 301). Vertical harmony must always be subservient to rhythm and melody: "In dead music the intervening parts do NOT aid the lateral movement. Take these bastards who are such nuts on harmony. Take W., supposed to be so correct and so skilled, *margari* learned, in harmony. His damned music does not move. On the other hand the man who said: harmony is perpendicular melody said a mouthful, though it be a bit sibylline" (*Music,* p. 437).

A music of chordal sonorities invites abuses, like lingering over nuance; and thus to Pound, Herbert Fryer "belongs to the blurry and rippling type of pianist; he has variety and liquidity of sound, but it is tiring to wait for the beat....It sounded at times as if he were beating a pile of feathers"

(*Music,* p. 87). Such mannerisms destroy rhythm. "We do not need new sonorities," cried George Antheil: "nuance as nuance should not exist."[14] Pound's special use of the terms "harmony" and "chord" explains some of his more startling pronouncements: "we noticed also how STUPID Liszt was, and how little he knew about chords" (*Music,* p. 278)—to which Ned Rorem retorts, "if Liszt didn't know about chords, nobody did!"[15] Liszt certainly did "know about" chords, but his decorative sonorities weakened the rhythmic movement of harmony.

Pound's concept of "harmony" thus ignores the structural function of tonality. This apparent ignorance is Pound's most serious disqualification as a theorist, and reminds us that we are confronting not a complete musician but an enlightened amateur with an axe to grind. Yet Pound's ignorance often obscures his genuine intuitions, and it is just this aspect of Pound's "theory of harmony" that makes it modern. Pound's few fundamental observations on harmony can claim the title of "theory" only for this re-orientation of attitudes, the same re-orientation felt by all advanced musicians of the period: the abandonment of tonality. Schoenberg, looking for a solution, found the tone row; Antheil, building on Stravinsky's example, attempted structures based on rhythm and "time-space." In 1923, just before meeting Pound, he wrote,"Neofism is tomorrow in music... a hard, simple ethic that rejects as new creative music all music which simply superimposes upon older propelling mechanisms new harmonic and tonal systems."[16] Pound's "Treatise on Harmony" (1924) represents his own groping after such a theory, based on ideas shaped in conversation with Antheil. The result was his non-tonal rule of harmony: "A SOUND OF ANY PITCH, or ANY COMBINATION OF SUCH SOUNDS, MAY BE FOLLOWED BY A SOUND OF ANY OTHER PITCH, OR ANY COMBINATION OF SUCH SOUNDS, providing the time interval between them is properly gauged; and this is true for ANY SERIES OF SOUNDS, CHORDS OR ARPEGGIOS (*Music,* p. 296). Pound's rule scarcely pretends to account for technicalities, but his essential point (rather obscured by the pretended simplicity) is that, tonality gone, the horizontal elements of rhythm and melody must determine form.

The most obvious benefit of Pound's rule is the unconditional liberation of dissonance. Pound sensed that music, once separated from tonality (which he apparently knew little about), could be considered simply as a meaningful arrangement of sounds, like the arrangements of shapes and gestures in any abstract art. But his rule also applies to musical sounds as pure *objets sonores*—the noise music of Russolo and Antheil's extensions of it, like the airplane propellors in *Ballet Mécanique.* But always, the chief problem is to find some principle of form for the organization of musical time. Pound sought the answer in rhythm and (what appealed to him most in music) in melodic line.

Pound's love for musical line parallels his love for linearity in art, the line of the Quattrocento. "In the creation of music," he said, "FIRST, melody":

> Melody, said Boris de Schloezer, is the most artificial thing in all music, i.e., it is furthest from anything a man can find there in nature.... The slop of the damned XIX century derived from a psychosis which neglected melody.... The way to LEARN composition is:
>
> A. Melody. Study of melody. Comparison of melodies from the earliest known up to now. Comparison of melodic development in the orient with that of the occident.
>
> B. Almost as a sub-head, the study of simultaneous rhythms, say in oriental dance music.
>
> C. What was done during the clean and decent periods of European music, namely the filling in of parts from melody and base [sic]. (*Music,* p. 436)

The prescription: melody and rhythm founded upon a "base." Pound listened for melody independent of accompaniment: "consider these musicians, capable fellows too," he said, "who can't 'hear' a melody until it is harmonized" (*Music,* p. 292). Troubadour song is melody unadorned; so is the oriental music that fascinated Pound. "Melody" also includes polyphonic music through Mozart, much of it conceived as melody over a ground bass. Thereafter—decline.

There may be difficulty, however, understanding how Antheil and Stravinsky qualify as melodic, while Schubert and Berlioz and other composers of the "damned XIX century" do not: the answer is supplied by Boris de Schloezer's definition. Arguing that melody is the most intellectual and artificial element in music, Schloezer duplicates Pound's case against impressionism: when the "natural phenomena" of music (rhythm, timbre, even harmony) gained ascendancy during the romantic era, music "began to act directly as a natural force," having found in itself "a magic and unsuspected power." On the other hand,

> Whatever be the historic origins of song, even if one admit that it began as a howl, i.e. direct, as you might say, physiological expression of emotion, its development is indisputably due to detaching it from physiological sources and to organizing it according to acoustic and aesthetic principles. Melody is the creation of the human intelligence standing up against nature. Nature offers no model but merely imposes certain anatomical and physical conditions which the human mind obeys precisely in order to escape from them and to construct an artificial universe wherein to reign. There is an intellectual part in every melody, and for that reason it demands comprehension from the auditor. It strikes the auditor as melody, succession, only in so far as the auditor is an active collaborator performing a synthesis (as rudimentary as you like). This is by no means the case with timbre, harmony or rhythm, which may be termed natural phenomena... admitting that one had to dig them out and shape them, this very shaping has consisted in making them serve melodic ends."[17]

Melody requires synthesis in time by the form-perceiving intellect postulated by vorticism. Hence Pound's index of the romantic decadence: "Roughly the phases are: decay of melody and consequent flop of music. Harmony dominates half-formed fragments of melodiousness, as distinct from being generated by a nucleus, that is from a melody strong enough and

fixed enough to give tension to larger musical forms. Accidentals and chromatic notes break loose from all orderly control, producing atonalism, then polytonality, but no new real technique" (*Music,* pp. 371-72).

Pound's conception of musical form, then, is essentially melody writ large. In Bach and Nardini, for example, melody equals form: "*Noto che questa e musica di linea, di linea melodica continuale, di quello che si chiama 'forma musicale'* '"; "I note that this is *linear* music, with a continuous melodic line, with what is called 'musical form'" (*Music,* p. 369). "If a man notices the FORM of a melody," declares Pound, "he may notice something else, he may notice, in fact, anything," and by this standard, Chopin is discovered to have "more architecture" than Franck: "There are hard facts in music. Chopin knew musical form" (*Music,* pp. 440, 108, 380). Chopin is rarely singled out for formal excellence; but he certainly qualifies as a melodist. Neither Antheil nor Stravinsky, on the other hand, is customarily praised as a melodist. Antheil, in fact, had declaimed, "'Melody' does not exist! 'Melody' *is* rhythm."[18] But this equation (apparent enough in Antheil's music) is precisely the point; melody is the horizontal, intellectual binding element of music in time. Troubadour monody, Arabic music—both are rhythmically organized forms. Melody and rhythm are two sides of the coin, and rhythm Pound took to be his special province.

Pound's statements about rhythm must always be considered in context, or he is easily misrepresented. Take, for example, two remarks about the metronome:

> Why, mon contradicteur, have masters of music specified that certain compositions be played at a certain speed? (Example, in my copy of Le Nozze, one finds: Presto, half note equals 84; Allegro, black equals 144, etc.) If anyone is interested, they might do worse than study the time proportions in the opening of the Concerto in A major. (*Music,* p. 303)
>
> I need hardly add that the metronome, distinguished invention of the age which held the exhibition of 1851, and was so renowned for mechanical ingenuity, will not greatly assist the learner in the understanding of metrical form. (*Music,* p. 233)

Pound may never have learned the correct date of Johann Mälzel's invention (1816), but the real discrepancy lies elsewhere. Pound is struggling to find the relationship (which no philosopher has yet defined) between the tick of the metronome and the free shape of the musical phrase: "Most arts," he says, "attain their effects by using a fixed element and a variable."[19] Yet the point is not that Pound wanted rhythm strict or wanted it free; he accepted both kinds. But rhythm must be always fully objectified *in* the printed music, a creation of the composer rather than the performer. He calls this concept "absolute rhythm," and likewise advises young poets "to compose in the sequence of the musical phrase, not in the sequence of a metronome."[20] Every rhythmic cadence objectifies a unique emotion, no matter what the medium, whether Provençal *canso,* or its English translation, or its musical setting: all are rhythmically identical. The verse, the translation, the melody—each has

ideally the same inflection, the same tempo. The rhythm itself, disembodied, is absolute.

So Pound demands exact notation. Written notes have precise values: "What they don't know is the FIRST page of the exercise book. Namely, that a whole note equals a whole note; or 2 halves or 4 quarters, etc., not approx. but exactly" (*Music,* p. 437). In troubadour music, before rhythmic notation, Pound suggests that musical rhythm was identical with asymetrical verbal rhythms:

> The Greeks and provençals recorded it approximately on paper and parchment, but guided their interpretation of the written signs largely by memory of the rhythm; that is, to such an extent that there can be only approximately "correct" and "incorrect" modern printing of twelfth-century tunes. There can be interesting and uninteresting interpretations.... The troubadour, as poet, thought that the singer would *feel* how the thing *ought* to be sung. And in this record we still have his word as guide to the singing. The notes on the stave represent the rise and fall of the voice... but the amount of time that the singer stays on one note, and the length of the pauses, is left largely to his own choice, or to the discretion of the modern editor (within reasonable limits). (*Music,* pp. 394-95)[21]

After notation developed, and after the *Ars nova* experiments, composers generally used the simplest proportions between note values: "Great composers record their rhythm *exactly.* Bach, Mozart and Stravinsky write what they want played. But a vast horde of third-rate and second-rate and very famous composers do not. They just put down something approximate" (*Music,* pp. 394-95). This is the lesson gathered from the opening bars of Mozart's Concerto in A major (presumably the Violin Concerto, K. 219): the violin entrance in this work, marked Andante, is in half-notes, accompanied by running thirty-seconds in the orchestra; Pound takes the proportion of sixteen notes to one as triumphant proof that no half-note in Mozart should be, even by so much, too long or too short.

Pound's demand for metronomic strictness, however, still finds room for a true rubato. After his students have learned melody, he says,

> then they may get around to noticing bar length, to disliking accordian bars which stretch and contract unintentionally, which are (in how many god damned editions) loaded with *"poco rit."* and similar marks of ineptitude, in season and out. And if the editor hasn't put in these indications in wrong places or all over the place, the purr-former performs 'em gratis, and without indication. After the first stumbles and the instinctive sense that a form must contain UNEVEN elements, one suffers and learns that an even measure, if long enough, has room for all sorts of oddities and uneven figures and units. (*Music,* p. 438)

The strictness, then, applies to rhythm on a large scale, the rhythm sweep; within this, irregularities are allowable, even desirable. If there are "wrong places" for *poco rit.,* presumably there are also right ones. Reviewing a soprano in recital, Pound reminded her that "rhythm-sense is not merely a

temps mesuré, it is not merely a clock-work of the bar lengths. Measured time is only one form of rhythm; but a true rhythm sense assimilates all sorts of uneven pieces of time, and keeps the music alive" (*Music,* p. 85).

In a fully achieved composition the rhythm is fixed in notation; but in poor music, where rhythm is notated carelessly, the performer must invent his own. Thus Pound disputed with Luigi Franchetti, who complained that he undervalued the performer: "The answer to Franchetti is that when Ysayë played a bad piece of music he played a great deal that the composer never thought of. Sarah Bernhardt made similar use of second rate and sixteenth rate plays. I have heard Yeats read poems that had no rhythm of their own, poems that had no more metric force and validity than you can find in a mashed potato, and by imposing a rhythm of his own on the formless verbiage, give it a transient and passing life" (*Music,* p. 406).

The competent composer does not expect a performer to do his work for him. His rhythm must exist as hard fact. The performer, then, serves merely as a kind of spirit-medium. He does not "interpret"; he simply delivers the goods undamaged. Hence the finicky notation of Pound's opera *Le Testament,* which attempts to freeze the precise durations of Villon's syllables. Hence Antheil's trenchant instruction on the first page of the manuscript:

> As the opera is written in such a manner so that nothing at all is left to the singer, the editor would be obliged if the singer would not let the least bit of temperament affect in the least the correct singing of this opera, which is written as it sounds! Please do not embarrass us by suddenly developing intelligence.

Despite Pound's apparently myopic insistence on the precise value of each thirty-second note, his ultimate concern was for the larger unit of rhythm, the unifying tempo. Often in his reviews he would register such complaints as, "though the singing was *trop mesuré,* there was not enough binding force in the rhythm"; or, "Mr. Coates seemed to have ingurgitated the music on the basis of those little perpendicular lines, and the idea of music as a structure of larger pieces of rhythm did not emerge, nor did the underflow of the work become apparent" (*Music,* pp. 145, 207). Rhythm does not divide time into little units, but accumulates through time as a vital energy. Even where fluctuation is allowed, there must remain an underlying, almost mystical, binding force: "The tempo of every masterwork is definitely governed; and not only the general tempo of the whole work, but the variations in speed, the tempo of individual passages, the time interval between particular notes and chords. The actual sound of a given note or chord needs a certain time to round itself out before the next sound is imposed or shot after it. The masterly rendering of a piece depends almost

wholly on the exact instants chosen for this imposition or suite of the arcs or spheres of succeeding sounds one on the other" (*Music,* p. 66). Elsewhere he employs a telling metaphor: "A rhythm unit is a shape; it exists like the keel-line of a yacht, or the lines of an automobile-engine, for a definite purpose, and should exist with an efficiency as definite as that which we find in yachts and automobiles." Later in the same review he praises tenor Roland Hayes for his "splended grip on the rhythm-sweep": "The distinction of performance is given by the clear presentation of words, the rhythmic validity, the utter sincerity of feeling, which saved even the songs of mediocre composers from their inherent banality.... In every song Mr. Hayes moves from a main concept; the *meaning* of the poem is in him, and the presentation is a unit; it is a considered and proportioned expression" (*Music,* p. 233).

These metaphors of keel-line or engine anticipate the machine music of George Antheil two years before Pound heard it. They forge the link between Antheil's kind of modernism and the motor rhythms of Vivaldi or the unitary tempos of the classic period. The metronome is simply a passive time-keeper, not the machine which brings form into being. Taking engine and keel-line together as ideogram, Pound's metaphors imply an active, unitary rhythm which "drives" or "steers" a piece to its conclusion. This brings us to the theory of "great bass."

* * *

Pound's term "great bass" has gained currency in criticism ever since Hugh Kenner used the metaphor for the underlying unity of the *Cantos.* But its meaning has always remained vague, and understandably, since there is not a little vagueness in the theory itself. Pound displays his term conspicuously in the *Guide to Kulchur,* but components were in his mind at least from 1910, and all are present in *Antheil and the Theory of Harmony.* "Great bass" is essentially a notion of total rhythmical organization. It appears in the best music of any period; it controls the minutest fragments and the largest proportions of the piece. Pound never satisfactorily articulated his theory, but it is an instructive study as the furthest extension (or perhaps *reductio ad absurdum*) of "absolute rhythm."

The most problematical element of "great bass" is the notion that rhythm bears some necessary fixed relationship to pitch. In his "Treatise on Harmony," Pound addressed the issue in the following manner: "You can use your beat as a third or fourth or N^{th} note in the harmony. To put it another way: the percussion of the rhythm can enter the harmony exactly as another note would. It enters usually as a Bassus, a still deeper bassus; giving the main form to the sound. It may be convenient to call these different degrees of the scale the megaphonic and microphonic parts of the harmony. Rhythm

is nothing but the division of frequency plus an emphasis or phrasing of that division" (*Music,* p. 303). Searching for an unshakable scientific basis for "absolute rhythm," Pound looked to the overtones and frequencies of vibrations in the material of musical sound. His reduction of sound to its component vibrations parallels his mystical reduction of all matter to light in the later *Cantos.* The fantasy that, given a formula of physics, one could reconstruct the bas-reliefs at Rimini or a symphony of Mozart's fascinated him: "You can reduce the line compositions of *La Nascita di Venere* to trigono-metric equations.... The results might be interesting but they would not help you to draw" (*Music,* p. 299). I would not care to guess Pound's opinion of Milton Babbitt, but he certainly never lost his faith that every great musical work has a discoverable mathematical foundation. "If I can only get the mathematics of these relations so complicated," he said (and one thinks of the notation of *Le Testament*), "the composer will become discouraged... and really listen to sound..." (*Music,* p. 304).

Pound based this belief on an illogical leap from "the variation of pitch is the variation in rhythms of the individual notes" to "the tempo of every masterpiece is absolute." Pound avoids absurd conclusions—that notes of different pitch must move at different speeds, or that pieces in A must move in an A-major tempo— but he insists that some relationship must be:

> To the best of my knowledge, I have always heard the lower notes of the pipe-organ not as pitch but as a series of separate woof-woofs. I don't want to insist on what may be a personal idiosyncrasy due to my being excessively quick on the uptake. The point is that UP to 16 items per second we notice the separate shocks; after that we notice a synthesis of frequency....
>
> Music as the ancient philosophers say, arises from number. Let us say that music is a composition of frequencies....
>
> When the frequency of vibration of one note bears the relation of 3 to 2 to the frequency of vibration of another, the combination is considered respectable....
>
> The time element affects harmony, sic.
>
> You can hear a note which has 16 vibrations per second.
>
> BUT
>
> You can also beat (on a drum head or other object) 16 times per second.
>
> The ear measures frequency....
>
> So the negroes in darkest Africa are probably right when they say that from simple beating of their drums they can imagine other instruments....
>
> To put it another way; the percussion of the rhythm can enter the harmony exactly as another note would. It enters usually as a Bassus, a still deeper bassus; giving the main form to the sound.... (*Music,* pp. 301-02)

Pound's statement about the physical nature of drumbeats is true enough, but his conclusions are more associative than logical. Pound claims that the "great bass" controls every level of rhythm, "the megaphonic and microphonic parts of the harmony," from the individual vibration constituting pitch

to the tempo of the quarter-note, and from there to "the sense of proportion between all time divisions whether 10 to the minute or era" (*Guide to Kulchur,* p. 233). Larger proportions within a work may be "consonant" like pitch intervals, if they are arranged by the composer in counted measures and calculated metronome markings. Pound even gives rules for using percussion at unison, octave, twelfth, or against "each incidence of nodes of the lower notes" (*Music,* p. 303). "Great bass" then becomes the basis for a kind of Pythagorean music of the spheres, only expressed in proportioned measures of time instead of pitch.

Pound draws one other corollary, twice inserted in the "Treatise on Harmony" with no further explanation: "THE HARMONY FOR ONE INSTRUMENT MAY NOT BE THE HARMONY FOR ANOTHER" (*Music,* p. 300). Logical gaps again need filling. Given that the overtone structure of every instrument differs, and given that the tempo of every masterwork, being absolute, is metronomically proportional to the "frequency" of the "great bass," which is in turn related to the overtone series, then it might seem plausible that the same piece in a new instrumentation ought to be re-harmonized. If this is truly Pound's train of thought, then it would explain the revised harmonization of the violin accompaniment to the "Heaulmiere" printed near the end of the *Guide to Kulcher,* which is based largely on thirds where the manuscript version with small orchestra has fourths and sevenths.

Some musicians will recognize in Pound's argument a startling anticipation of Karlheinz Stockhausen's theory of unity in electronic music. Stockhausen, positing that the "drastic separtion of acoustics and music is no longer meanful where composition includes the synthesis of the sound waves themselves," attempts to correlate the coloristic, harmonic, melodic and rhythmic properties of sound under a single control based on pulses of sine waves. A musical composition, he says, "is no more than a temporal ordering of sound events." His ideal, like Pound's, is "a basic, single, unified musical time," and he correlates a-periodic rhythm with noise and periodic rhythm with pitch rather in the way that Pound proposes "dissonant" drum-beats.[22]

Stockhausen, of course, is speaking of the full range of sound possible on electronic tape, not just the twelve chromatic frequencies. Pound too wanted a rhythmic unity to replace tonality, but he was still bound in 1924 to tonal music or to music like Antheil's, still based on the chromatic frequencies plus a tentative reaching into the area of noise. But Pound's "Treatise on Harmony" is remarkable in the history of music as one of the earliest efforts to come to grips with esthetic problems that still concern composers today. Rather than being appalled by the challenge of Luigi Russolo's *intonarumori,* Pound not only welcomed it but saw the need for a new redefinition of musical form.

George Antheil, even more conscious than Pound of the need to replace tonality with a purely rhythmic organization, formulated a theory of musical "time-space" that, being more coherent than Pound's *Treatise on Harmony,*

throws considerable light on Pound's intentions. "My Ballet Méchanique," says Antheil, "is neither tonal, nor atonal.... It has nothing to do with tonality." He denies all programmatic intentions. Music is nothing, he continues, "except *time* and *sound,* and the physical and psychic *concept* of these vibrating the human organism."[23] He further explains in a note to the published score:

> Interpretively speaking, BALLET MÉCANIQUE was never intended to demonstrate (as has been erroneously said) "the beauty and precision of machines." Rather it was to experiment with and thus, to demonstrate a new principle in music construction, that of "Time-Space," or in which the time principle, rather than the tonal principle, is held to be of main importance.
>
> To demonstrate. Up until Strawinsky and Schoenberg, most contemporary music has been constructed, architecturally speaking, on the tonal principle. A sonata allegro movement, for example, spread out a tonality, departed from it in the development, returned again in the recapitulation—usually with a vengeance. It is still an excellent principle. But it neglects "Time-Space."
>
> Strawinsky attempted to move away from its iron grip by making his music "supertonal" so to speak. Schoenberg, going to the opposite pole, destroyed tonality entirely by removing all tonal centers in the 12 tone systems.[24]

Rather than applying "time-space" to classical works, Antheil in fact implies a progress from rudimentary forms in Bach and Mozart to grand temporal structures of the future. "I have no doubt," he declared in 1924,

> that some day in the future vast rhythmic edifices of sound, tightened and stretched a thousand-fold through the evolving of the inner abstraction of music will radiate a higher voltage than we can imagine today. And it may be that these sounds may not at all be what we today call "musical vibration." It may even be made by beating vast pieces of wood and steel, and attain vibrations today unknown. But this will all be by-product, in relation to the abstraction of time-space, which is the first problem of musical art of the future... and incidentally, in a weak and often-times halting way, has been the great problem of musical art of the past... perhaps the sole great problem.[25]

Antheil is already at work, he says, on a piece four hours long, and planning one after that ten hours long.[26] Antheil's prophecy was a necessary forerunner hailing the advent of Stockhausen, as yet unborn (though his "higher voltage" seems a rather more prophetic metaphor than "vast pieces of wood and steel").

Pound, on the other hand, turned to the music of the past, where he was as little interested in the exploits of the key center in Mozart's music as he was in Antheil's. Tonal structure aside, the uniform tempos and balanced proportions in the music of Vivaldi or Mozart, and the ground-bass of baroque music acting like the keel-line of a yacht, assured him of the presence

of a "great bass." Antheil's "time-space" idea, conceived independently, must have seemed positive confirmation of Pound's own theories, with the additional advantage of providing for more complex rhythms than Mozart ever dreamed.

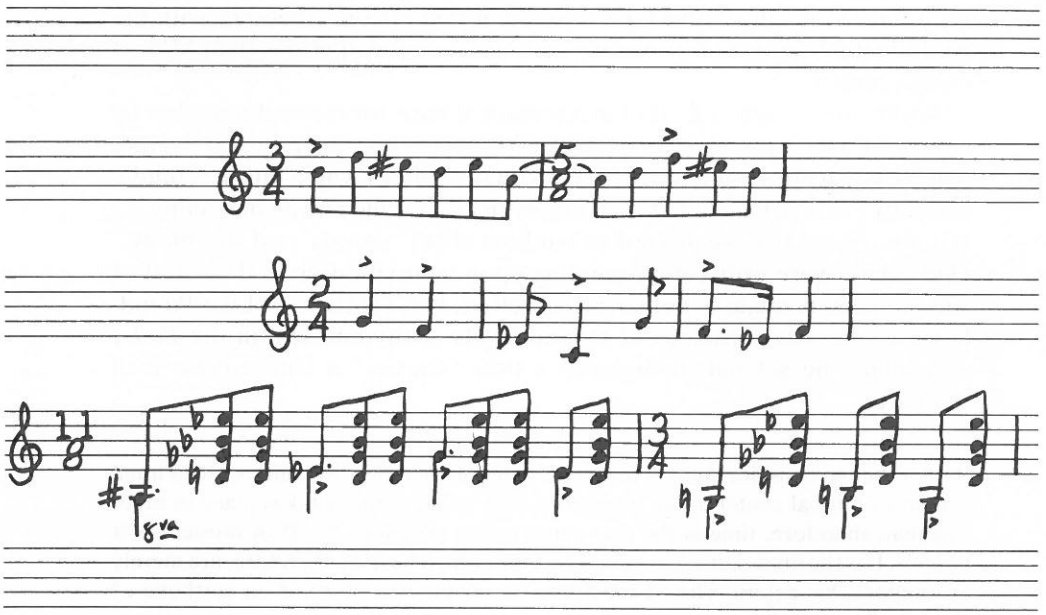
Antheil too sought a kind of mathematical basis for musical time, but he rejected Pound's pseudo-scientism about frequencies: "Any musical mathematics which does not concern itself with the stuff of which music is fundamentally made, which is TIME, is emphatically a fraud and an imbecility.... It is about time that we discard all bunkum about "chords" and "harmony." One cannot base criticism of painting upon light vibration....The stuff of which music is made is not sound-vibration, but TIME...."[27] Like Pound, however, he was conscious of several levels of rhythm, and in the *Ballet Mécanique* he set out to organize a time "canvas," a length conceived spatially:

> Rather than to consider musical form as a series of tonalities, atonalities with a tonal center, or a tonal center at all, it supposes that music actually takes place in time; and that, therefore, time is the real construction principle, "stuff of music," as it unreels. It is the musician's "canvas." The tones which he uses, therefore, are merely his crayons, his colors. The "Time-Space" principle, therefore, is an aesthetic of "looking," so to speak, at a piece of music "all at once." One might propose, therefore, that it is a sort of "Fourth Dimension"-al way of looking at music.[28]

Albert Einstein's speculations on the relativity of time and space, confirmed by an eclipse of the sun in 1919, were causing a great stir; but despite Antheil's lingering faith in 1953 that musical "time-space" has anything to do with Einstein's, we may safely assume that his spatialized conception of time is purely metaphorical, and as such is already implicit in classical sonata form.[29] (Amusingly, Pound reports submitting his "Treatise on Harmony" to the "author of a work on Einstein," who approved but "thought it ought to be longer," [*Music,* p. 301]). The genuinely novel feature of Antheil's music is its use of rhythm as the large-scale organizing principle.

Antheil's smallest rhythmic unit is not the frequency vibration but the less esoteric metronome marking. Unfortunately, since the only published score of *Ballet Mécanique* is a revised version done in 1953, it is hard to say what Antheil's exact intentions were in 1926: where one looks for meticulous metronome markings one finds ♩ = 144:160. The original version could not have tolerated such latitude, however, since the score included pianolas and was intended to synchronize with a film (one of the earliest abstract films) made by Fernand Léger and Dudley Murphy; so the tempos must have been dictated with such precision as Pound's theories lead one to expect.[30] How this level of rhythm corresponds to anything in Pound's poetry, however, is difficult to imagine.

The brief rhythmic-melodic motifs that constitute the second level of rhythmic organization relate to Pound more readily:



This material, repeated, varied, transposed, is what Pound praises in *Guide to Kulchur* as the "short hard bits of rhythm hammered down, worn down so that they are indestructable and unbendable." He calls them "unsquashable monads" (which explains the presence of Leibniz in the chapter on "Great Bass" [*Guide to Kulchur,* pp. 74, 94-95]). Compare Antheil: "Music can only be practical when it is... as hard as stone, organized of indestructable musical fragments, banalities, and rhythms...."[31] These hard bits of rhythm correspond to rhythmical elements in other artistic techniques praised by Pound. The "form-motifs" in the vorticist designs of Gaudier and Wyndham Lewis likewise generate a large form from freely combined modular units—triangles, spheres, and so on—"as in a piece of music," says Pound. Even if the monads are representational, like the bird-calls of Janequin's "Chanson des Oiseaux," the arms and noses of a Picasso portrait, or sequences of Léger's film, they may be re-combined into a free, abstract "musical" structure. Above all, Pound's *vers libre* is a free re-combination of smaller rhythmic units mainly derived from classical meters.[32]

Antheil's "time-space" is most deeply concerned, however, with the largest scale of rhythmic organization. In the *Ballet Mécanique,* he wrote,

> I used time as Picasso might have used the blank space of his canvasses. I did not hesitate, for instance, to repeat one measure one hundred times; I did not hesitate to have nothing on my pianola rolls for sixty-two bars; I did not hesitate to ring a bell against a certain section of time or indeed to do whatever I pleased

to do with this time canvas as long as each part of it stood up against every other. My ideas were the most abstract of the abstract.... Although I had very clearly published exactly what I intended way back in 1923 and 1924 in many advance-guard magazines, practically all of the dumb-bells in New York went to listen to the *Ballet Mécanique* expecting to see me grind out pictures of the machine age! Some imbeciles expected to see a kind of Buck Rogers fantasy of the future.[33]

Antheil set large block-like units of time in contrasting textures side by side. Theoretically at least, these larger blocks correspond to the smaller rhythmic units. One device (derived from North African music) is consecutive measures of 2/8, 3/8, 4/8, 5/8, up to 17/8—sometimes in the whole ensemble, sometimes in just, say, the snare drum as counter-rhythm. Another device in the original version (though not in the published score) was the use of measured silences.[34] Drawing the unavoidable comparison with Stravinsky, Pound saw an advance; "the 'Sacre' stands," he says, "but its cubes, solid as they are, are in proportion to the Ballet Mécanique as the proportions of architecture are to those of town planning. Technically, the fact is, that Mr. Antheil has used longer durations than any other musician has ever attempted to use... much longer durations" (*Music,* p. 315).

Unfortunately, Pound's thinking on this level is over-generalized, and the consequences show up in his work. His subtle ear and his keen eye for relationships were not matched by large-scale organizational power. Granted, much remains to be said about the architectonics of the *Cantos*; but no one now, I think, still awaits a magic formula that will fit all the pieces into one grand design. Writing in the mid-1920s, Pound was perhaps excited by Antheil's notion of "time-space" precisely because it promised such a formula—a simple mechanism to control the unthinkably long durations of cantos yet to be written—and Hugh Kenner's use of the term "great bass" postulates such a mystic and subliminal cohesive force. But no one has demonstrated its existence. Pound himself, reaching for another musical analogy, fugue, found only another name for juxtaposition.[35] His life's work remains an assemblage of form-motifs, rhythm motifs, unsquashable monads —fascinating, but lacking the overall binding rhythm he hoped to achieve.

NOTES

1/ *Erza Pound and Music,* ed. R. Murray Schafer (New York, 1977), p. 318. All subsequent page references in the text are to this volume which will be abbreviated as *Music.* A fine recording of *Le Testament* conducted by Robert Hughes is available on Fantasy 12001.

2/ See my essay, "Pound, Olga Rudge, and the 'Risveglio Vivaldiano,'" *Paideuma,* 4 (1975), 111-18.

3/ Compare William Walter Hoffa, "Ezra Pound and George Antheil: Vorticist Music and Cantos," *American Literature,* 44 (1972), 52-73. Hoffa draws only from readily available sources, does not cite the William Atheling reviews, and repeats several erroneous details about *Le Testament*; nonetheless, his conclusions are essentially correct. For a detailed discussion of vorticism, see William C. Wees, *Vorticism and the English Avant-Garde* (Toronto, 1972).

Musicians have been slow to recognize Pound. Samuel Lipman accurately places him

in the reformation of taste, but gives neither him nor Antheil credit as theorist or composer (*Music after Modernism,* [New York, 1979], pp. 193-204). David H. Cope places Antheil and Pound with Russolo's futurism, but does not explore the relationship (*New Directions in Music,* [Dubuque, Iowa, 2nd ed., 1976], pp. 10-12). Pound would be pleased to know that he will appear in the long-awaited new edition of *Grove's Dictionary.*

Antheil's autobiography, *Bad Boy of Music* (New York, 1945), has probably done much to damage Pound's musical reputation ("Ezra was never to have even the slightest idea of what I was really after in music," [p. 119]). Antheil, however, had not only turned against his early *avant garde* attitudes and defected to Hollywood, but he was also writing with a need for political self-justification: Pound had been broadcasting for Mussolini, and Antheil's chief French supporter, Jacques Benoist-Méchin, was a notorious collaborator with Vichy. Thus, like many autobiographers, Antheil's guiding counsel was not Truth. His early opinions must be sought in his articles from the 1920s.

4/ Pound, "Vortex," *Blast,* 1 (June, 1914), 153-54.

5/ Pound, *Pavannes and Divisions* (New York, 1918) p. 251; *Gaudier-Brzeska* (1917; Hessle, 1960), p. 89. See also *Alvin Langdon Coburn: Photographer* (London, 1966).

6/ Langer, *Philosophy in a New Key* (New York, 1942), pp. 174-208, especially p. 198.

7/ Pound, *The Spirit of Romance* (1910; New York, 1953), p. 14.

8/ See A. G. Lehmann, *The Symbolist Aesthetic in France 1885-1895* (Oxford, 1968), pp. 194-206.

9/ Pound, *Guide to Kulchur* (1938; New York, 1952), pp. 152-53.

10/ Pound, "Vorticism," *New Age,* 16 (14 January 1915), 277-78.

11/ Watts, *Ezra Pound and "The Cantos"* (Chicago, 1952), p. 112. Definitive cases against this position are made by Eva Hesse, Introduction to *New Approaches to Ezra Pound* (Berkeley, 1969), and Herbert N. Schneidau, *Ezra Pound: The Image and the Real* (Baton Rouge, Louisiana, 1969). A little-known poem from 1908, "For Italico Brass," reveals that Pound was already discontented with Monet's impressionism (*Collected Early Poems of Ezra Pound,* [New York, 1976], p. 254):

> Some as I say
> See but the hues that 'gainst more hues laugh gay
> And weave bright lyric of such interplay
> As Monet claims is all the soul of art.
> But I see more.

12/ Russolo's manifesto is reprinted in Nicolas Slonimsky, *Music Since 1900* (New York, 1937), pp. 536-42. I have not found any other evidence that Pound attended this performance, but my argument is unchanged even if he wrote from hearsay.

13/ *Literary Essays of Ezra Pound,* ed. T. S. Eliot (London, 1954), p. 434.

14/ Antheil, "Jazz," *Querschnitt,* 2 (1922), 172.

15/ Ned Rorem, Introduction to *Antheil and the Treatise on Harmony,* (New York, 1968), p. 14.

16/ Antheil, "The Musical Ethic of the Future, Musical Neofism," *Querschnitt,* 3 (1923), p. 51.

17/ "A Classic Art, by Boris de Schloezer," trans. Ezra Pound, *Dial,* 86 (1929), 473. This is part of Schloezer's book *Igor Stravinsky* (Paris, 1929), the whole of which was translated by Pound in the pages of *Dial.*

18/ Antheil, "Mother of the Earth," *Transatlantic Review,* 2 (August, 1924), 226.

19/ Pound, *ABC of Reading* (1934; New York, 1960), p. 201.

20/ *Literary Essays of Ezra Pound,* p. 3.

21/ Pound has evidently changed his mind on the subject since helping Walter Morse Rummel edit *Hesternae Rosae,* Serta II (London, 1913), a collection of nine troubadour melodies

transcribed according to the rhythmic modes and set to piano accompaniment.

22/ Karlheinz Stockhausen, "The Concept of Unity in Electronic Music," *Perspectives in New Music,* 1 (1962), 39-48.

23/ Antheil, "My Ballet Mécanique: What It Means," *Querschnitt,* 5 (1925), 789.

24/ Antheil, *Ballet Mécanique* (Delaware Water Gap, Pa., 1959), "Composer's Notes."

25/ Antheil, "Abstraction and Time in Music," *Little Review,* 10 (Fall, 1924), 13-14.

26/ "My Ballet Mécanique: What It Means," p. 791.

27/ "Abstraction and Time in Music," p. 14.

28/ "Composer's Notes" to *Ballet Mécanique.*

29/ See, for example, Patricia Carpenter, "Musical Form Regained," *Journal of Philosophy,* 61 (1964), 36-48.

30/ On the film, see Standish D. Lawder, *The Cubist Cinema* (New York, 1975), chs. 4 and 7.

31/ "The Musical Ethic of the Future, Musical Neofism," p. 52.

32/ *Gaudier-Brzeska,* p. 125. The most authoritative account to date of Pound's meter is James A. Powell, "The Light of Vers Libre," *Paideuma,* 8 (1979), 3-34.

33/ Letter to Nicolas Slonimsky dated 21 July 1936, in *Music Since 1900,* p. 288.

34/ See Henry Cowell, "Current Chronicle," *Musical Quarterly,* 40 (1954), 242-43.

35/ See my article "Are the *Cantos* a Fugue?" *Univ. of Toronto Quarterly,* 45 (1975), 67-74. Kenner's discussion of "great bass" appears in *The Poetry of Ezra Pound* (New York, 1951).

"Wife and Mother"
Title page of Samuel Rowlands' *The Bride*